

What is Claimed:

1-Electronic Vehicle Monitoring System for tracking the location of a plurality of motor vehicles at a particular location having a plurality of parking slots thereat, said system comprising .

A plurality of parking space units each for placement at a particular parking slot, each of said plurality of parking units comprising a receiver for receiving signal and a transmitter for transmitting signals.

A plurality of vehicle units each for installation into a particular motor vehicle, each of said plurality of vehicle units comprising , a vehicle unit transceiver for transmitting and receiving signals, said transceiver transmitting a unique low power signal to said parking space unit receiver ,each of said plurality of parking space unit receiving a unique low power signal from a particular vehicle , in which said vehicle units is installed in and is parked in a particular slot.

A computer interface transceiver unit installed in a base station which used to monitor the operation of said system.

Said parking space unit transmitter signaling to said base station transceiver unit and said base station transceiver receiving said signal.

2-Electronic Vehicle Monitoring System as defined in claim 1 wherein each of said plurality of vehicle units comprises.

- a processor ,a memory containing unique information identifying the particular vehicle
- a power supply
- a receiver and

a low power RF transmitter. For transmitting a unique unidirectional signal from a particular vehicle unit , to a particular parking space receiver unit that the particular vehicle is parked in.

3-Electronic Vehicle Monitoring System as defined in claim 1 wherein each of said plurality of parking space units comprises .

- a processor
- a power supply, a receiver ,a transmitter
- a memory containing unique information identifying the particular parking space.

A receiver for receiving unique low power RF signal from a particular vehicle unit installed in a particular vehicle . A transmitter transmitting an signal to a base station receiver unit containing information identifying the particular parking slot that the particular motor vehicle is parked in.

4-Electronic Vehicle Monitoring System as defined in claim 1 wherein said base station comprises.

- a computer
- a Transceiver unit

A computer interface for connecting said base station transceiver to a computer unit which used to monitor the operation of said system. Said computer transceiver receiving a signal from said parking space unit containing information identifying the particular parking slot that the particular motor vehicle is parked in.

5-Electronic Vehicle Monitoring System as claimed in claim 1 wherein said parking space unit transmitter transmitting a signal to a base station transceiver unit containing information identifying both the particular motor vehicle that said vehicle unit is installed in and the particular parking slot that the particular motor vehicle is parked in and a base station computer interface unit receiving information identifying both the particular motor vehicle that each vehicle unit is installed in and the particular parking slot that each motor vehicle is parked in.

6-Electronic Vehicle Monitoring System comprises a Vehicle unit Transceiver unit installed in plurality of motor vehicles containing unique information identifying the particular vehicle unit.

Said plurality of vehicle unit transmitter transmitting a unique RF signal containing information identifying a particular motor vehicle that said vehicle unit is installed in. And a base station computer interface unit receiving said information identifying the particular motor vehicle that each vehicle unit is installed in, from a set distance in a lot.

7-Electronic Vehicle Monitoring System as claimed in claim 1 & 6 wherein each of said plurality of vehicle unit transmitter transmitting said signal upon said vehicle ignition system is being turned off.

8-Electronic Vehicle Monitoring System as defined in claim 1 wherein said base station computer signaling said base station transceiver unit to transmit a unique RF coded signal to a particular vehicle unit, said particular vehicle unit upon receiving said signal transmits a RF signal containing vehicle information identifying said particular motor vehicle that said vehicle unit is installed in to said base station computer interface unit.

9-Electronic Vehicle Monitoring System as claimed in claim 1 & 6 wherein each of said plurality of motor vehicle unit transmitter transmitting upon said vehicle transceiver receiving a unique Rf coded signal from said base station transceiver unit.

10-Electronic Vehicle Monitoring System as defined in claim 1 wherein said base station computer signaling said base station transceiver unit to transmit a unique coded signal to a particular parking space unit, said parking space unit upon receiving said signal, transmits said parking space information identifying said particular parking space unit installed in a particular parking slot to said base station computer interface unit.

11-Electronic Vehicle Monitoring System as claimed in 2 wherein each of said plurality of vehicle unit transmitting a infrared unidirectional signal

12-Electronic Vehicle Monitoring System as claimed in claim 2 wherein each of said plurality of vehicle unit transmitting Electromagnetic signal.

13-Electronic Vehicle Monitoring System as claimed in claim 3 wherein each of said plurality of parking space receiver unit receiving a infrared signal from particular vehicle unit.

14-Electronic Vehicle Monitoring System as claimed in claim 3 wherein each of said plurality of parking space units receiving an electromagnetic signal from a particular vehicle unit.

15-Electronic Vehicle Monitoring System for tracking the location of plurality of motor vehicles at a particular location having a plurality of parking slots thereat, said system comprising.

A plurality of parking space unit each for placement at a particular parking slot, each of said plurality of parking units comprising receiver for receiving signal and a transmitter for transmitting signals.

A plurality of vehicle units each for installation into a particular motor vehicle each of said plurality of vehicle units comprising, a vehicle transceiver unit for transmitting and receiving signals.

Said parking space unit transmitting a unique low power signal to a particular vehicle unit parked at a particular parking slot. Said vehicle transceiver unit upon receiving said signal said vehicle transceiver transmits a unique RF signal containing said vehicle information to a base station computer interface unit.

16-Electronic Vehicle Monitoring System as claimed in claim 15 wherein said parking space unit transmitting a unique low power RF signal to a particular vehicle unit upon receiving a signal from said base station computer interface unit.

17-Electronic Vehicle Monitoring System as claimed in claim 15 wherein said vehicle unit transmitting a unique RF signal containing both vehicle and parking space information to a base station computer interface unit

18-Electronic Vehicle Monitoring System as claimed in claim 15 wherein said base station computer interface unit signaling a particular vehicle transceiver unit with a unique RF coded signal, said vehicle transceiver receiving said signal and said vehicle transceiver unit signaling with a unique low power RF signal a particular parking space unit that said particular vehicle is parked in said parking space unit upon receiving said signal from said particular motor vehicle unit, transmits a signal to said vehicle unit with a low power RF signal containing information to said particular parking space unit. said vehicle transceiver unit upon receiving signal from a particular parking space unit, said vehicle unit signaling said base station computer interface unit with a RF signal containing information both the particular motor vehicle unit that each of said vehicle units are installed in and the particular parking space unit that each motor vehicle is parked in.

19-Electronic Vehicle Monitoring System as claimed in claim 15 wherein said parking space unit is equipped with a motion sensor, said sensor upon detecting vehicle movement in a particular parking space that is installed in, said sensor signaling said particular parking space unit to transmit a low power signal to said particular vehicle transceiver unit installed

within said particular vehicle, and said vehicle transceiver unit upon receiving said signal from the particular parking space unit transmits a unique RF signal containing said vehicle information to a base station computer interface unit.

20-Electronic Vehicle Monitoring System as claimed in claim 15 wherein said plurality of parking space unit is connected to a sensor switch, said switch is placed within plurality of parking space, said sensor switch detecting vehicle movement when a particular vehicle enters or exit said particular parking space by means of traveling over said sensor switch, said sensor signaling said particular parking space unit to transmit a low power signal to said particular vehicle transceiver unit installed in a particular vehicle. Said vehicle transceiver unit upon receiving said signal from said particular parking space unit transmits a unique RF signal containing information to said particular motor vehicle to a base station computer interface unit.

21-Electronic Vehicle Monitoring System as claimed in claim 15 wherein said parking space unit transmitting a unique directional inferred signal.

22-Electronic Vehicle Monitoring System as claimed in claim 15 wherein said parking space unit transmitting a unique electromagnetic signal.

23-Electronic Vehicle Monitoring System as claimed in claim 15 wherein said vehicle transceiver unit receiving a unique infrared signal.

24-Electronic Vehicle Monitoring System as claimed in claim 15 wherein said vehicle transceiver unit receiving a unique electromagnetic signal.

25-Electronic Vehicle Monitoring System as claimed in claim 1 - 6 & 15 wherein said means for determining the presence of a security violation comprises at least one of the group consisting of a ignition switch sensor used to sense when the particular vehicle is started, a voltage drop circuitry to sense when a door or trunk is opened, a motion sensor used to detect motion in the particular vehicle and a door switch sensor used to sense when one of the particular vehicles door is opened, and transmitting means transmitting at least one of said group violation to said monitoring station.

26-Electronic Vehicle Monitoring System as claimed in claim 25 wherein said security violation comprises at least one of the group consisting of a light controller which may be used to flash the particular motor vehicle lights, engine immobilizer module may be used to disable the particular motor vehicle engine. A horn controller which may be used to honk the horn. A auto dialer phone or a pager which is installed within said vehicle to signal a monitoring station. Presence of a violation.

27-Electronic Vehicle Monitoring System as claimed in claim 1 -6 & 15 wherein said vehicle additionally is equipped with a GPS antenna and said base station is equipped with a GPS tracking system to monitor the location of said vehicle.

28-Electronic Vehicle Monitoring System as claimed in claim 1 - 6 & 15 wherein said base station computer is interfaced with a vehicle key track unit, said base station computer is capable of monitoring said key track system by means of which vehicle key is in or out from the key track system, and identifying the person in which had or has access to said keys.

29-Electronic Vehicle Monitoring System as claimed in claim 1 - 6 & 15 wherein said monitoring station is additionally equipped with a voice or digital auto dialer to notify a vehicle security violation to a monitoring station.

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30-Electronic Vehicle Monitoring System as claimed in claim 1 - 6 & 15 wherein said monitoring station computer transceiver interface unit is capable of signaling a plurality of vehicle receiver unit, an RF signal to arm and or disarm said vehicle units.

31-Electronic Vehicle Monitoring System as claimed in claim 1 -6 & 15 wherein said monitoring station computer transceiver is capable of signaling a plurality of vehicle receiver units, a unique RF signal to lock and or to unlock said vehicles doors.

32-Electronic Vehicle Monitoring System as claimed in claim 1 - 6 & 15 wherein said monitoring station computer transceiver unit is capable of signaling a plurality of vehicle receiver units a unique RF signal to flash the lights and or honk the horn of said vehicle.

33-Electronic Vehicle Monitoring System as claimed in claim 1 - 6 & 15 wherein said monitoring station computer transceiver unit is capable of signaling a plurality of vehicle receiver units a unique RF signal to immobilize said vehicle engine.

34-Electronic Vehicle Monitoring System as claimed in claim 1 -6 -& 15 wherein said monitoring station comprises a hand held computer interface with a RF transceiver which may be used to monitor the operation of said system.

35-Electronic Vehicle Monitoring System as claimed in claim 26 - 27 wherein said vehicle transceiver and or GPS unit controlling the vehicle ignition system. If and when said vehicle transceiver and or GPS unit has been tampered with or disconnected from said vehicle, said vehicle transceiver and or GPS unit transmitting a signal to said vehicle ignition circuitry to immobilize said engine, and or honk the horn of said vehicle, and or signal a monitoring station the presents of a security violation.

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36-Electronic Vehicle Monitoring system as claimed in claim 35, wherein said vehicle transceiver and or GPS unit communicating with said vehicle ignition circuitry by means of RF or hard wire signal.

37-Electronic Vehicle Monitoring System as claimed in claim 35, wherein said vehicle transceiver unit additionally comprises

a transceiver unit with a tamper switch

a mounting tape, a magnet, or a mounting bracket used to mount said vehicle unit into said vehicle

Said transceiver unit tamper switch location side is mounted against said vehicle structure, to control the operation of said vehicle unit. When said vehicle transceiver unit is removed from said mounted position, said vehicle transceiver unit transmitting a security violation signal.

38- Electronic Vehicle Monitoring System as claimed in claim 37, wherein said vehicle unit additionally comprises of a GPS antenna driver and or a mobile phone or a pager unit.

39- Electronic Vehicle Monitoring System as claimed in claim 37-38, wherein said vehicle unit is mounted within or onto said vehicle rear view mirror

40- Electronic Vehicle Monitoring System as claimed in claim 37, wherein said tamper switch additionally comprises of conductive rubber adhesive, used to mount said vehicle unit into said vehicle.

41- Electronic Vehicle Monitoring System as claimed in claim 28, wherein said vehicle key track (Key Dispenser) unit is equipped with a bio-optic finger print reader, to identify authorized user print, allowing user access to a selected vehicle key and log in said data.

42- Electronic vehicle Monitoring System as claimed in claim 41, wherein each one of said vehicle keys contain or is connected to a RFID tag. Each one of said Key Track unit is equipped with a RFID tag reader capable of log in and log out selected vehicle key given to a particular user.

43- Electronic Vehicle Monitoring System as claimed in claim 28, wherein said Key Track unit is equipped with a microphone, a voice recognition processor, for user identification. It utilizes user voice recognition process to dispose a particular vehicle key.

44- Electronic Vehicle Monitoring System as Claimed in claim 41 wherein said user access to a selected vehicle is achieved by user given verbal command.

45- Electronic vehicle Monitoring System as claimed in claim 41, wherein said Key Track unit is equipped with a speaker to give verbal instruction to the user.

46- Electronic Vehicle Monitoring system as claimed in claim 35, wherein said vehicle transceiver CPU and GPS receiver units tempering or disconnecting, causes said vehicle fuel pump or starter circuit interrupts.